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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,307	08/01/2001	Eugene P. Rivers JR.	82210	7952
Naval Surface Warfare Center Office of Counsel (Patents) 17320 Dahlgren Road, Code XDC1			EXAMINER	
			SUKMAN, GABRIEL S	
			ART UNIT	PAPER NUMBER
Dahlgren, VA 22448-5100			3641	
			DATE MAILED: 01/28/2004	<b>,</b>

Please find below and/or attached an Office communication concerning this application or proceeding.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Edenancies of the many be available under the proximation of 37°F81 138(a). In no ovent, however, may a reply be limitely filled after 50X (6) MCNI THS from the mailing date of this communication.  **If NO period for reply is gendled above, the maximus district of the communication.  **Fallure to reply within the set or edenated period for reply will be filled above, and the state of the communication.  **Fallure to reply within the set or edenated period for reply will be filled above, the maximus misturely provided usages and will exempt \$1X(9) MCNITS from the mailing date of this communication.  **Fallure to reply within the set or edenated period for reply will, by statute, cause the application to become ABANDONED (35 U s.C. § 133).  **Any reply received by the Office allet when these mortal as that the mailing date of this communication, even if limity filled, may reduce any owner provided them subjects to communication set to the mailing date of this communication.  **Any reply received by the Office allet when the the mortal as the the mailing date of this communication.  **Any reply received by the Office allet when the the mortal as the the mailing date of this communication.  **Any reply received by the Cities of the Communication.  **Status**  **Provided to this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Exparte Quayle, 1935 C.D. 11, 453 O.G. 213.  **Disposition of Claims**  **Application is accordance with the practice under Exparte Quayle, 1935 C.D. 11, 453 O.G. 213.  **Disposition of Claims**  **Application for Claims**  **Application is accordance with the practice under Exparte objected to.  **Claim(s) 1.5-6,11.12,16-19,22-27 and 30 is/are rejected.  **Application Papers**  **9			
Examiner		Application No.	Applicant(s)
Cabriel S Sukman  3941  3941  3941  3941  3941  3941  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE of This COMMUNICATION.  If the period for reply specified above is use shush this 1900, days, a reply white the catalogy reply and velocity (St.) MONTHS from the malified date of the communication from ply is specified above. The maximum databacy period will apply and velocity (St.) MONTHS from the malified date of this communication from ply is specified above. The maximum databacy period will apply and velocity (St.) MONTHS from the malified date of this communication for sply is specified above. The maximum databacy period will apply and velocity (St.) MONTHS from the malified date of this communication, even if timely filed, may reduce any seamed pathods.  Any reply received by the Office late that times made after the maling date of this communication, even if timely filed, may reduce any seamed pathods.  A proper produce any reply received by the Office late that the maling date of this communication, even if timely filed, may reduce any seamed pathods.  A proper produce any reply received by the Calcium (St.) 2011.  A proper produce any reply received by the control of the maling date of this communication, even if timely filed, may reduce any reply received by the produce any reply received by the produce and the maling date of this communication, even if timely filed, may reduce any reply received by the produce and timely.  A proper produce any reply received by the produce and the produce and timely reply and the produce and timely reply and to the produce and	Office Action Summany		RIVERS, EUGENE P.
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Estensions from many be available under the provisible and of this communication of 30°CPR 137(9). In no event, however, may a reply be timely flied able SIX (9) MONTHS from the mailing date of this communication, supply within the statisticy print and the six (8) MONTHS from the mailing date of this communication.  Fallulate to reply visible in the state of the communication of the provision in set or extended pound for reply will, by statisticy printed will pay and will eleps fick (8) MONTHS from the mailing date of this communication.  Fallulate to reply within the set or extended pound for reply will, by statistic, cause the application to become ABANDONED (35 U.S. C. § 133)  Any reply received by the Officio letter than these monsities date for the incumentation of the communication.  Fallulate to reply visible in set or extended pound for reply will, by statistic, cause the application to become ABANDONED (35 U.S. C. § 133)  Any reply received by the Officio letter than these monsities date for the communication of the communication.  Fallulate to reply visible in set of continuation of the set of the communication.  Fallulate to reply visible in set of the communication of the communication.  Fallulate to reply visible in set of the communication.  Page 100 This action is FINAL.  20) This action is FINAL.  20) This action is final.  21) This action is final.  22) Siscer this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-39 is/are pending in the application.  4) Claim(s) 1-39 is/are pending in the application.  4) Claim(s) 1-39 is/are allowed.  5) Claim(s) 1-39 is/are allowed.  6) Claim(s) 1, 1-5-	Office Action Summary	Examiner	Art Unit
A SHORTENDE STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ② MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - after SIX (s) MONTH'S from the mailing date of this communication.  - if the provide rough is apposited above, the maximum statutory princed will apply and will expert SIX (s) MONTH'S from the mailing date of this communication.  - if the provide rough is apposited above, the maximum statutory princed will apply and will expert SIX (s) MONTH'S from the mailing date of this communication.  - if the provide rough is apposited above, the maximum statutory princed will apply and will expert SIX (s) MONTH'S from the mailing date of this communication.  - Any ruphy received by the Officia for the state there mailing date of this communication, event it limitely filled, analy resident any analysis and provided them state there mailing date of this communication, event it limitely filled, analy resident any analysis and provided them states that the state there mailing date of this communication, event it limitely filled, analy resident any analysis and provided them states and s	The MAN INC DATE of this communication		l l
THE MAILING DATE OF THIS COMMUNICATION.  Edemands of them may be available under the provision of 37 CPR 1.13(a), in no event, however, may a raply be limitly illed of the SIX (6) MONITS from the mailing date of this communication.  **Pollute SIX (6) MONITS from the mailing date of this communication.  **Follute for raply villine the set or ectended period for raply will publish the statistics printing may be sufficient to reply is pollute above, the maximus statistic y present will explicated in obscence ABANDONED (38 U.S. C. § 133).  **An yraply received by the Office laber than three mortals after the mailing date of this communication, even if timely flied, may reduce any mainted publish term adjustment. See 37 CPR 1.76(b).  **Status**  1) **Exponsive to communication(s) filled on **Office* August 2001.**  2a) **D his action is FINAL.**  2b) **Exponsive to communication for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under **Exparte Quayle*, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims*  4) **Exposition of Claims**  4) **Exposition of Claims*  4) **Exposition of Claims**  5) **Claim(s)** 1.58 1.11.2.16-19.22-27 and 30 islare rejected.**  7) **Exposition of Claims**  9) **The specification is objected to by the Examiner.**  4) **Exposition of Papers**  9) **The specification is objected to by the Examiner.**  10) **Exposition of Papers**  9) **The drawing(s) filed on **Office* Action of the drawing(s) be held in abeyance. See 37 CFR 1.85(a).**  Replacement drawing sheet(s) including the correction is required the drawing(s) is objected to See 37 CFR 1.12(d).**  11) **The oath or declaration is objected to by the Examiner.** Note the attached Office Action or form PTO-152.**  Priority under 35 U.S.C. §\$ 119 and 120  12) **Acknowledgment is	Period for Reply		·
2a)  This action is FINAL. 2b)  This action is non-final.  3  Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4)  Claim(s) 1-30 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration.  5)  Claim(s) is/are allowed. 6)  Claim(s) is/are allowed. 6)  Claim(s) is/are allowed. 7)  Claim(s) are subject to restriction and/or election requirement.  Application Papers  9)  The specification is objected to by the Examiner.  10)  The drawing(s) filed on 01 August 2001 is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a)  All b) Some * O) None of:  1.  Certified copies of the priority documents have been received in Application No.  3.  Copies of the certified copies of the priority documents have been received in Application No.  3.  Copies of the certified copies of the priority documents have been received in Application Papers application from the International Bureau (PCT Rule 17.2(a)).  *See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14)	THE MAILING DATE OF THIS COMMUNIC  - Extensions of time may be available under the provisions o after SIX (6) MONTHS from the mailing date of this commu  - If the period for reply specified above is less than thirty (30)  - If NO period for reply is specified above, the maximum statt  - Failure to reply within the set or extended period for reply w  - Any reply received by the Office later than three months after	CATION.  f 37 CFR 1.136(a). In no event, however, may a renication.  days, a reply within the statutory minimum of thirty utory period will apply and will expire SIX (6) MON will by statute. cause the application to become AB.	eply be timely filed y (30) days will be considered timely. THS from the mailing date of this communication. ANDONED (35 U.S.C. & 133)
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Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. §§ 119 and 120  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.  37 CFR 1.78.  a) The translation of the foreign language provisional application has been received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  Actiachment(s)  Autachment(s)  Notice of Profesperson's Patent Drawing Review (PTO-948)  5) Notice of Informal Patent Application (PTO-152)			jected to by the Examiner.
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#### **DETAILED ACTION**

### Claim Objections

Claim 4 is objected to because of the following informalities: it appears that the word --comprising-- is missing in line one of the claim. Appropriate correction is required.

## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11, 22, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11, 22, and 30 each recite the limitation "second data link" in line 2 of the claims. There is insufficient antecedent basis for this limitation in the claims.

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 23, 25, 26, 27, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,289,817 B1 to Quebral et al. (hereinafter Quebral).

Quebral discloses all of the limitations of claim 3. Quebral teaches a payload dispenser that includes a computer having at least one input and at least one output (delivery processor, 30), a magazine holding a plurality of tubes with actuatable capsules (see col. 3, lines 25-31), and a controller as claimed (programmed logic controller, 24).

Quebral discloses all of the limitations of claim 25 as per the discussion below regarding claim 6.

Quebral discloses all of the limitations of claim 26 as per the discussion below regarding claim 7.

Quebral discloses all of the limitations of claim 27 as per the discussion below regarding claim 8.

Quebral discloses all of the limitations of claim 30 as per the discussion below regarding claim 11.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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Claims 1, 5-8, 11, 12, 16-19, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quebral in view of U.S. Patent No. 4,938,115 to von Maydell.

Quebral clearly discloses all of the limitations of claim 1 except for explicitly stating that the dispensing system is used in an unmanned aerial vehicle with an autopilot. Quebral discloses a payload delivery system that includes a receiver (36), a transmitter (44), and a payload dispenser that includes a computer having at least one input and at least one output (delivery processor, 30), a magazine holding a plurality of tubes with actuatable capsules (see col. 3, lines 25-31), and a controller as claimed (programmed logic controller, 24). The disclosure of Quebral is relatively narrow in that it may reasonably be assumed that the system is for use in a UAV since the payload delivery is not taught to be controlled by a pilot of the aircraft, but rather an operator at some remote location, but nonetheless, the teaching of the UAV containing an autopilot is not disclosed by Quebral. Von Maydell, on the other hand, does disclose a UAV that includes an autopilot and is configured for dropping objects or weapons from its bomb bay. It would therefore be obvious to one having ordinary skill in the art at the time the invention was made to install the sophisticated remotely controlled payload delivery system of Quebral in the unmanned aerial vehicle of von Maydell since the system of Quebral is disclosed as being remotely controlled and the remotely controlled vehicle of von Maydell would provide a suitable and obvious carrier for the system of Quebral.

The limitations of claim 5 are taught by the modified invention of Quebral in view of von Maydell since the carrier of von Maydell is designed to mount the dispensing device in its bomb bay with an opening.

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The limitations of claim 6 are taught by the modified invention of Quebral in view of von Maydell since Quebral teaches the use of a breech plate (22), which necessarily includes an appropriate wire harness.

The limitations of claims 7 and 8 are clearly taught by the modified invention of Quebral in view of von Maydell as per the disclosure of Quebral in col. 3, lines 15 through 39.

The limitations of claim 11 are taught by the modified invention of Quebral in view of von Maydell since the delivery processor is interposed between the computer and the receiver and receives signals from the receiver and provides them to an input port of the computer.

The method of claim 12 is readily apparent from the modified invention of Quebral in view of von Maydell since the only differences between the method steps and the apparatus elements are that such elements are "provided." It is apparent that if the elements of the apparatus claims are taught, then each of the elements are "provided."

The limitations of claim 16 are taught by the modified invention of Quebral in view of von Maydell according to the discussions above regarding claims 12 and 5.

The limitations of claim 17 are taught by the modified invention of Quebral in view of von Maydell according to the discussions above regarding claims 12 and 6.

The limitations of claim 18 are taught by the modified invention of Quebral in view of von Maydell according to the discussions above regarding claims 12 and 7.

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The limitations of claim 19 are taught by the modified invention of Quebral in view of von Maydell according to the discussions above regarding claims 12 and 8.

The limitations of claim 22 are taught by the modified invention of Quebral in view of von Maydell according to the discussions above regarding claims 12 and 11.

The limitations of claim 24 are taught by the modified invention of Quebral in view of von Maydell according to the discussions above regarding claims 12 and 23.

### Allowable Subject Matter

Claims 2-4, 9, 10, 13-15, 20, 21, 28, and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art or record does not disclose or suggest the combination that would teach a dispensing system as claimed that includes a video camera on the front of the vehicle that provides signals that are routed to the autopilot, or the system including a differential GPS receiver that provides signals to an input port of the computer, or a system that includes a data link that receives atmospheric data and sends the signals to an input port of the computer.

### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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U.S. Patent No. 5,866,838 to Mayersak

U.S. Patent No. 4,494,437 to von Maydell

U.S. Patent No. 4,194,708 to Tracy et al.

U.S. Patent No. 3,547,000 to Haberkorn et al.

UK Patent Application GB 2 174 177 A to von Maydell

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel S. Sukman whose telephone number is (703) 308-8508. The examiner can normally be reached on M-F, 8:30-6:00, every other Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-4180.

gss

SUPERVISORY PATENT EXAMINER